

Alan Guth

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“Inflationary Cosmology: Is Our Universe Part of a Multiverse?”

**Tuesday,
April 30, 2013
4:30 p.m.**

Town Hall - Leadership Studies

Refreshments to be served at 4:00 p.m.
in Room 123 of Leadership Studies

Lecture for the General Public

I will begin by explaining how inflation works, emphasizing how inflation can account for the properties of the cosmic background radiation, which we view as the afterglow of the big bang explosion. This radiation is incredibly uniform, but also has a pattern of faint ripples that are attributed by inflation to the probabilistic behavior of quantum theory. Observations have shown that these ripples agree beautifully with the patterns predicted by inflation. An interesting feature of inflation is that almost all versions of it lead to eternal inflation: once inflation starts, it goes on forever, producing a "multiverse" of "pocket universes," one of which would be our universe. The multiverse idea is speculative, but I will explain why I believe it should be taken seriously.



Dr. Alan Guth